

THE HYDRAULIC TORQUE WRENCH

LDH SERIES, 60 - 27000 Nm

Integrated relief valve in the hydraulic connection increases work safety

360° rotating hydraulic connection under load for flexible bolting work

Reduced size and compact construction for extremely confined spaces

Quick-change mechanism for rapid shifting of the reaction arm

Super-light high performance aluminium for rugged and ergonomic handling

Various inserts as accessories for flexible working

Counter bearing with push button allows quick replacement of various inserts



Optional: Swivel connection

Optional: Inclined connection



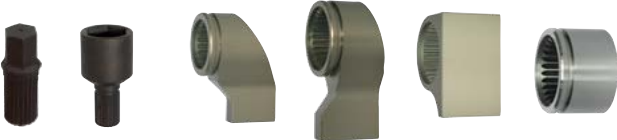
Scope of delivery

- › Device
- › Square drive
- › Counter bearing
- › Tool box
- › Torque-setting-table
- › Operating manual



Optional accessories

- › Allen screw
- › Toothed impact sockets and special inserts on request
- › Different reaction arms (look p. 36)
- › Swivel connection (see above)
- › Inclined connection (see above)



Light, easy to handle and with high torque

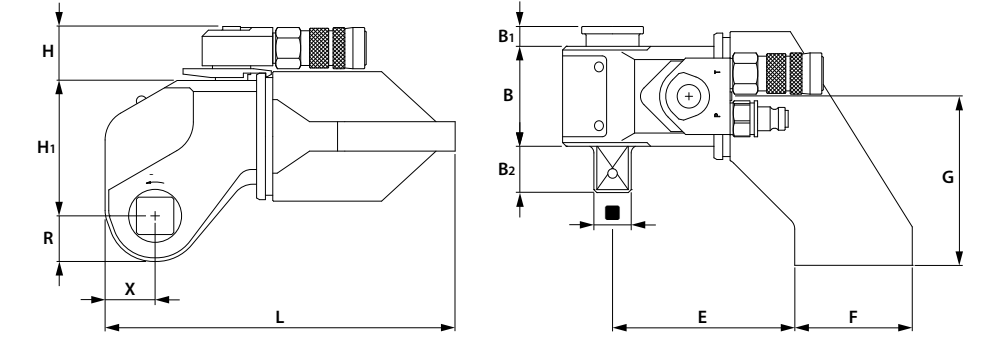
The LDH is used where space is limited but high torque is required. In order to facilitate bolting operations for the user, the hydraulic torque wrench series has been designed with high-performance aluminium and subject to continuous improvements. The size has therefore been constantly reduced while more and more features have been included to make the difficult work easier for the user.

An integrated relief valve ensures working safety and the flow-optimised, generously dimensioned oil channels reduce heating up of the device during high continuous loads to a minimum.

The perfect combination

Together with our hydraulic units, the hydraulic torque wrenches achieve a maximum in work performance. Both components together create an excellent synergy of user-friendliness and operating convenience.

Technical Data



Series LDH – hydraulic

Type	N-m min/ max*1	lbf-ft min/ max*1	■	B mm	B ₁ mm	B ₂ mm	E mm*3	F mm*3	G mm	H mm	H ₁ mm	L mm*3	R mm	X mm	kg*2
LDH-12V	60 - 1200	45 - 880	3/4"	46	7	28	-/88	-/48	78	37	62	-/158	19	22	1.9
LDH- 24V	120 - 2350	90 - 1730	3/4"	53	6	28	59/109	60/58	95	37	72	146/194	24	27	2.0
LDH-48V	230 - 4800	170 - 3500	1"	68	14	32	70/125	89/80	115	37	92	193/239	31	34	3.9
LDH-75V	400 - 7560	290 - 5570	1 1/2"	76	12	44	74/134	94/93	122	37	107	207/266	36	39	6.2
LDH-100V	500 - 10 000	370 - 7300	1 1/2"	84	13	39	85/150	105/99	130	37	115	233/292	39	43	7.8
LDH-170V	800 - 16 000	590 - 11800	1 1/2"	100	11	45	93/163	118/108	150	50	135	265/325	48	54	11.8
LDH-270V	1300-27 000	960 - 19900	2 1/2"	119	18	76	121/206	145/133	200	50	164	329/402	59	63	24.0

*1 Maximum torque at 800 bar

*2 Without reaction arm

The continuous sound pressure as per DIN 455635 is < 70 dB(A)

*3 Reaction arm type L(LM) / Reaction arm type S(LM)

Vibration is less than 2.5 m/s²

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Allen screw - ISW

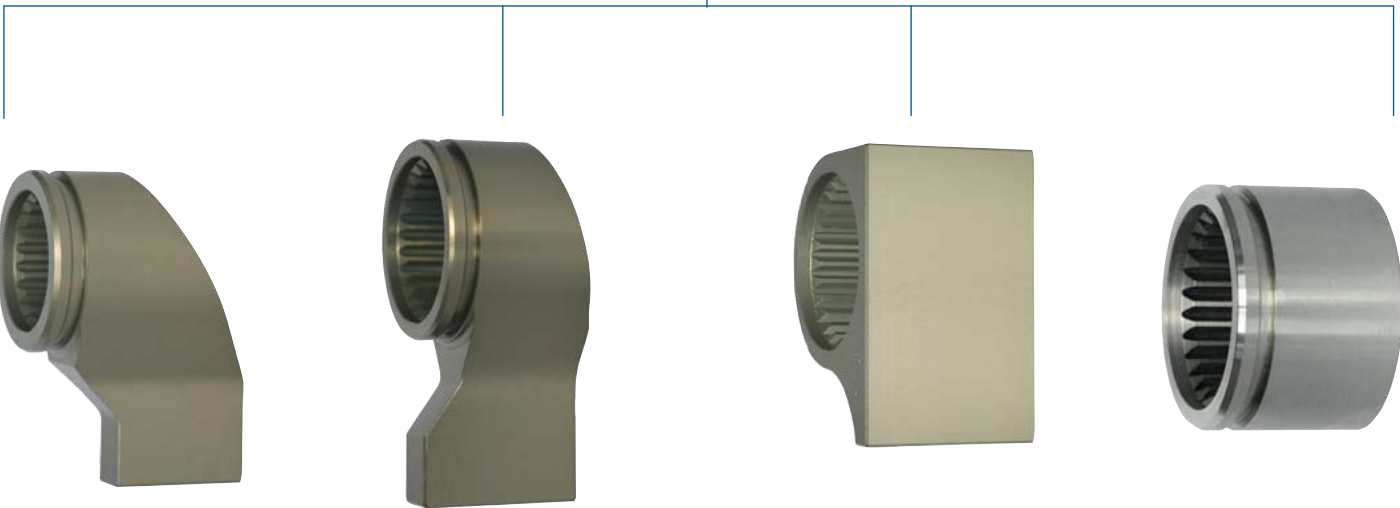
Type	ISW mm
LDH-12V	ISW 12V-14
	ISW 12V-17
	ISW 12V-19
LDH-24V	ISW 24V-14
	ISW 24V-17
	ISW 24V-19
	ISW 24V-22
	ISW 24V-24
LDH-48V	ISW 48V-17
	ISW 48V-19
	ISW 48V-22
	ISW 48V-24
	ISW 48V-27
	ISW 48V-30
	ISW 48V-32

Type	ISW mm
LDH-75V	ISW 75V-17
	ISW 75V-19
	ISW 75V-22
	ISW 75V-24
	ISW 75V-27
	ISW 75V-30
	ISW 75V-32
LDH-100V	ISW 100V-19
	ISW 100V-22
	ISW 100V-24
	ISW 100V-27
	ISW 100V-30
	ISW 100V-32
	ISW 100V-36

Type	ISW mm
LDH-170V	ISW 170V-27
	ISW 170V-30
	ISW 170V-32
	ISW 170V-36
	ISW 170V-41
	ISW 170V-46
LDH-270V	ISW 270V-36
	ISW 270V-41
	ISW 270V-46
	ISW 270V-50
	ISW 270V-55
	ISW 270V-60
	ISW 270V-65
	ISW 270V-70



Reaction arms



Reaction arm S (LM)
Standard design

Reaction arm L (LM) (except LDH-12V)
Compact design

Reaction arm K (LM)
For embedded screws
and raised allen screws

Reaction sleeve RH (St)

THE CASSETTE WRENCH

LDK SERIES, 160 - 24000 Nm

Relief valve in hydraulic connection
increases work safety

360° rotating hydraulic connection
under load for flexible bolting work

Compression bolt technology enables simple
insertion and replacement of the cassette

Light design ensures best
torque-weight relationship

Compact design for
confined spaces

Various wrench widths
ensure universal applications

Optional: Swivel connection

Optional: Inclined connection

Scope of delivery

- > Device
- > Tool box
- > Torque-setting-table
- > Operating manual



Optional accessories

- > Retaining ring – HR and hexagon insert – SA
- > Exchangeable cassette - WK
Inch sizes on request
- > In-Out impact socket
- > Swivel connection (see above)
- > Inclined connection (see above)





Simple loosening and precise tightening in confined spaces

Tight spots can become problem spots. In such situations, the LDK series is the ideal solution. Compact dimensions are paired here with high torques. The flat hexagon cassettes have been optimised for minimum radius and compact construction heights.

Economic in use

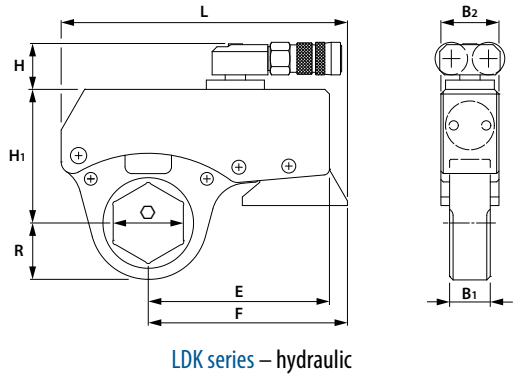
A separate cassette size is not always necessary for every wrench width. The installation spaces often leave enough room for the economic hexagon adapters. These are, like all the adaptations, locked in the corresponding interchangeable cassette with a holding ring so that they cannot be lost.



Simple operation and handling characterises the cassette torque wrench

The interchangeable cassettes can be rapidly and easily changed with the compression bolt technology. Different types of hydraulic connections enable adaptation to diverse bolting operations even in difficult to access points.

Technical data



Type	N·m min/max ^{*1}	lbf·ft min/max ^{*1}	⊘ mm	⊘ "	B ₁ mm	B ₂ mm	E mm	F mm	H mm	H ₁ mm	L mm	R mm	 ^{*2}
LDK - 3	160 - 3300	120 - 2400	32 - 60	1¼" - 2¾"	28	40	137	145	39.2	91/103	205	28 - 48	1.6
LDK - 6	350 - 6200	260 - 4500	41 - 80	1½" - 3¼"	35	50	156	172	39.2	115/130	247	34 - 60	2.4
LDK - 12	550 - 12 500	410 - 9200	55 - 100	2¾" - 3¾"	47	65	200	215	39.2	141/156	311	46 - 73	4.4
LDK - 24	1200 - 24 000	880 - 17 700	80 - 130	3¼" - 5"	56	82	245	260	50.0	182/202	385	62 - 96	8.2

^{*1} Maximum torque at 800 bar ^{*2} Without exchangeable cassette
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Technical data: Interchangeable cassettes - WK, Hexagon insert - SA, Retaining ring - HR

Type	WK Typ	R mm	H ₁ mm	N·m max ^{*1}	lbf·ft max ^{*1}	SA ^{*2} SW/SW			HR mm
LDK-3	WK3-32	28.5	91	1700	1300	-	-	-	-
	WK3-36	31.5	91	2100	1550	-	-	-	-
	WK3-41	34.5	91	2500	1850	SA3-41»36	SA3-41»32	SA3-41»30	HR-41
	WK3-46	38.5	91	2890	2130	SA3-46»41	SA3-46»36	SA3-46»32	HR-46
	WK3-50	42.0	103	3290	2430	SA3-50»46	SA3-50»41	SA3-50»36	HR-50
	WK3-55	45.0	103	3290	2430	SA3-55»50	SA3-55»46	SA3-55»41	HR-55
	WK3-60	47.5	103	3290	2430	SA3-60»55	SA3-60»50	SA3-60»46	HR-60
LDK-6	WK6-41	34.5	115	3840	2830	SA6-41»36	-	-	HR-41
	WK6-46	39.5	115	4805	3540	SA6-46»41	SA6-46»36	SA6-46»32	HR-46
	WK6-50	43.5	115	5410	3990	SA6-50»46	SA6-50»41	SA6-50»36	HR-50
	WK6-55	46.5	115	5410	3990	SA6-55»50	SA6-55»46	SA6-55»41	HR-55
	WK6-60	48.5	115	5410	3990	SA6-60»55	SA6-60»50	SA6-60»46	HR-60
	WK6-65	52.5	130	6190	4570	SA6-65»60	SA6-65»55	SA6-65»50	HR-65
	WK6-70	55.5	130	6190	4570	SA6-70»65	SA6-70»60	SA6-70»55	HR-70
	WK6-75	57.5	130	6190	4570	SA6-75»70	SA6-75»65	SA6-75»60	HR-75
LDK-12	WK6-80	60.5	130	6190	4570	SA6-80»75	SA6-80»70	SA6-80»65	HR-80
	WK12-55	46.5	141	8000	5900	SA12-55»50	SA12-55»46	SA12-55»41	HR-55
	WK12-60	48.5	141	8000	5900	SA12-60»55	SA12-60»50	SA12-60»46	HR-60
	WK12-65	52.5	141	9800	7230	SA12-65»60	SA12-65»55	SA12-65»50	HR-65
	WK12-70	55.5	141	9800	7230	SA12-70»65	SA12-70»60	SA12-70»55	HR-70
	WK12-75	57.5	141	9800	7230	SA12-75»70	SA12-75»65	SA12-75»60	HR-75
	WK12-80	60.5	141	10 860	8010	SA12-80»75	SA12-80»70	SA12-80»65	HR-80
	WK12-85	64.5	156	12 500	9220	SA12-85»80	SA12-85»75	SA12-85»70	HR-85
	WK12-90	67.5	156	12 500	9220	SA12-90»85	SA12-90»80	SA12-90»75	HR-90
	WK12-95	70.5	156	12 500	9220	SA12-95»90	SA12-95»85	SA12-95»80	HR-95
LDK-24	WK12-100	73.5	156	12 500	9220	SA12-100»95	SA12-100»90	SA12-100»85	HR-100
	WK24-80	62.0	182	13 950	10 290	SA24-80»75	SA24-80»70	SA24-80»65	HR-80
	WK24-85	66.0	182	15 810	11 660	SA24-85»80	SA24-85»75	SA24-85»70	HR-85
	WK24-90	69.0	182	16 430	12 120	SA24-90»85	SA24-90»80	SA24-90»75	HR-90
	WK24-95	72.0	182	17 860	13 170	SA24-95»90	SA24-95»85	SA24-95»80	HR-95
	WK24-100	76.0	182	17 860	13 170	SA24-100»95	SA24-100»90	SA24-100»85	HR-100
	WK24-105	80.0	182	17 860	13 170	SA24-105»100	SA24-105»95	SA24-105»90	HR-105
	WK24-110	84.0	202	24 000	17 700	SA24-110»105	SA24-110»100	SA24-110»95	HR-110
	WK24-115	87.0	202	24 000	17 700	SA24-115»110	SA24-115»105	SA24-115»100	HR-115
	WK24-120	90.0	202	24 000	17 700	SA24-120»115	SA24-120»110	SA24-120»105	HR-120
	WK24-125	93.0	202	24 000	17 700	SA24-125»120	SA24-125»115	SA24-125»110	HR-125
	WK24-130	96.0	202	24 000	17 700	SA24-130»125	SA24-130»120	SA24-130»115	HR-130

^{*1} Maximum torque at 800 bar ^{*2} Special adapter on request Vibration is less than 2.5 m/s² The continuous sound pressure as per DIN 455635 is < 70 dB(A)
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THE HYDRAULIC UNIT

LHU SERIES

Completely sealed housing protects unit and operator even in the roughest of applications

Sensors are installed in the unit, not in the hydraulic torque wrench. This makes the unit compatible with all hydraulic torque wrenches (dual-hose system)

Wear-free pump technology means that the unit is maintenance-free

Maximum pressure: 800 bar

Plug-in connections for power and control system

Novel cooling air supply for optimal cooling of the unit even under extreme loads



Manual control - M

The classic, semi-automatic control system enables the user to manually initiate every stroke of the hydraulic torque wrench. The return stroke is automatic.

Automatic control - A

The bolting operation is started by pressing a button, then automatically implemented and ended in the automatic control mode.

Modular control - Solution

The Solution control system is modularly expandable. All settings can be configured and bolting operations documented via the display.

Technical data

Type	V / Hz	MP L/min., bar	HP L/min., bar	Tank L ^{*1}	LxBxH mm	 kg ^{*2} - M	 kg ^{*2} - A	 kg ^{*2} - Solution
LHU-30	110/50	2.1/320	0.7/800	3.0	400x240x380	27.0	27.2	27.5
LHU-30	110/60	2.5/320	0.8/800	3.0	400x240x380	27.0	27.2	27.5
LHU-30	230/50	1.7/320	0.8/800	2.5	400x240x380	27.0	27.2	27.5
LHU-30	230/60	2.5/320	0.8/800	3.0	400x240x380	27.0	27.2	27.5
LHU-35	110/50	3.0/320	0.8/800	3.5	570x275x400	41.5	42.0	42.5
LHU-35	110/60	3.5/320	1.0/800	3.5	570x275x400	41.5	42.0	42.5
LHU-40	230/50	3.1/320	0.7/800	4.0	480x270x400	33.0	33.5	34.0
LHU-40	230/60	3.7/320	0.9/800	4.0	480x270x400	33.0	33.5	34.0
LHU-60	400/50, 60	4.7, 5.6/320	1.4, 1.7/800	6.2	480x270x400	36.5	37.2	37.5

^{*1} Supplied filled with oil and ready for operation ^{*2} Weight with control system, without oil
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Modular control LHU Solution

The LHU Solution series is the high-end model in modern hydraulic unit technology. The operator controls the entire bolting process via remote control. In addition to the basic bolting methods (manual, automatic and torque-rotation angle), the control system can be retrofitted according to your requirements with additional modules of our bolting software.

More information about documentation modules see pages 54/55

The display and its functions:

Integrated work lighting

Visual and acoustic user guidance

3.5 „high-resolution LCD color display with impact-resistant macrolon screen

Back button

Start bolting

Integrated holding magnets on the back for secure fixation on metallic surfaces

Inductive interface for data transmission

Adjustment wheel for easy selection of bolting options and torque values

Enter button

Pump OFF

